

said plurality of first passageway plates and said plurality of second passageway plates being piled up alternately with one of said plurality of partition plates interposed between neighboring first and second passageway plates,

wherein said first and second passageways are aligned with each other, and first and second fluids flow through said first and second passageways, respectively, in a countercurrent fashion, and

wherein a partition is provided in at least one of said first and second passageways to divide said at least one passageway into two in a widthwise direction thereof.

15. (NEW) The plate heat exchanger according to claim 14, wherein said partition plates are thicker than said first or second passageway plates.

16.(NEW) The plate heat exchanger according to claim 14, wherein said first and second passageways have generally U-shaped turning portions, and at least one of said first and second passageways has substantially a same width in a direction of length thereof.

17. (NEW) The plate heat exchanger according to claim 15,  
wherein said first and second passageways have generally U-shaped

turning portions, and at least one of said first and second passageways has substantially a same width in a direction of length thereof.

18.(NEW) The plate heat exchanger according to claim 14, wherein said first and second passageways have generally U-shaped turning portions, and each of said first and second passageway plates has a through-hole defined therein between adjoining fluid paths of each of said first and second passageways, and wherein said through-holes of said first and second passageway plates communicate with one another.

19.(NEW) The plate heat exchanger according to claim 15, wherein said first and second passageways have generally U-shaped turning portions, and each of said first and second passageway plates has a through-hole defined therein between adjoining fluid paths of each of said first and second passageways, and wherein said through-holes of said first and second passageway plates communicate with one another.

20.(NEW) A method of making a plate heat exchanger having a plurality of plates sandwiched between a pair of end plates, the plurality of plates having two passageways defined therein that are

not in fluid communication with each other, said method comprising the steps of:

shaping the plurality of plates by pressing;

coating with paste solder those surfaces of the plurality of plates that are positioned on an upstream side thereof in a punching direction during pressing;

piling up the plurality of plates so that the punching directions thereof during pressing coincide; and

heating the plurality of plates under a condition in which the plurality of plates are held in close contact with one another.

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